

JACG NEWSLETTER

Vol. 2 No. 8

April 1983

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THE JERSEY ATARI COMPUTER GROUP

Awesome April Issue

From the Editor's Desk ...

Spring is here and it is time for the Awesome April Issue of the Jersey Atari Computer Group Newsletter. With this issue, a bolder, bigger look is evident. The Newsletter itself is now user-friendly, with a larger type face and issue contents printed on the front page. Theme issues will occur approximately every 2 months and a banner headline under the masthead will herald the issues theme. February was a special theme issue on printers and word processing. This issue is special too. Its the AWESOME APRIL ISSUE the one you've been waiting for.

In the "Just when you thought it was safe to begin reading the Newsletter again" department, this issue has once again scooped the major rags and the Underground Press. The first review of the new Atariwriter word processor to appear anywhere in print will be found in these pages. The sensational new game Planet Missionary is reviewed here. This is the first and only mention of this awesome new game to appear. A review of the Edumate Light Pen is also in this issue. There are a couple of fun things as well, and an exclusive hands-on report of the new Atari 1200XL. LATE FLASH!! Atari will begin to market their game software in IBM-PC and Apple versions. PAC-MAN on the PC. Give me a break!

With the change in type size of the Newsletter, I now require paper copy to have 4-1/2 in. column width rather than 4-3/4 in. For specific details, see the "Writing for the JACG Newsletter" column elsewhere in this issue. Also, don't forget the special ALL GAMES ISSUE, slated for June. Get those game reviews and game-related material to me soon.

Until the "One after the Awesome but still sensational", May issue, Happy Computing from:

Arthur Leyenberger

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1983 MEETING SCHEDULE

All meetings are held on the second Saturday of each month in the Bell Labs Auditorium, Murray Hill, New Jersey. The meetings begin promptly at 10:00 a.m. and finish about noon. Dealer sales are permitted from 9:15 to 10:00 in the lobby, a general question and answer session occurs from 9:30 to 10:00, and a member sale/swap session takes place from 9:30 to 10:00 in the lobby (original software only).

April 9, 1983
May 14, 1983
June 11, 1983
July 9, 1983
Aug. 13, 1983

AND NOW A WORD FROM THE PRESIDENT....

Random thoughts, or a column in search of content...

I must confess to all of our members that I have been remiss in not reporting to you all the advertisements for new and better "goodies" that come to me each month. I simply have not had time to organize and write up a summary of all these items, even though I realize that they may be of value to some of you. Take heart, however, because I have gotten Larry Ficks to volunteer to do all of the above and report the results in our own newsletter. In fact, I was pleased that several members volunteered to do the job.

Games....I like games! I think most of you like, at least, to see games demonstrated. I think that we should have time set aside at each meeting to demonstrate a few of the latest and best that we can collect.

Space at meetings is a problem. Help us find a new, bigger home by checking out any possibilities that you know of. Who knows, we may end up meeting closer to your house.

Time at meetings is also a problem. We have so very much that we want to do at each monthly meeting. I think we can improve things by having a better understanding with speakers as to the time allotted and a warning signal when the time is nearly gone. All speakers, including yours truly, should practice beforehand so that the content matches the time available for it.

All the above comments on meetings are intended only as constructive criticism. We must be doing something right, because we continue to grow. This does not mean, however, that we have no room for improvement. We need to periodically evaluate our procedures, modifying those in need as we go. Ruts are to be avoided, even seemingly smooth ones. Your input is most welcome.

The appearance of ads for the Micro Mainframe and Rana disk drives with their double density and other features should mean that an era of less expensive disk drives is about to dawn. Up until now, this peripheral has bucked the trend of more and more at lower and lower prices. Perhaps the coming 3 and 3-1/2 inch drives are making the 5 inch guys nervous.

I think that the appearance of the Austin Franklin 80 column board will make Bit-3 a little nervous also. We should see some easing of prices here, too. Isn't it wonderful when the free market functions so well - supply and demand, caveat emptor and all that stuff!

Enjoy this April issue and read it with a grain of salt (an intentional mixed metaphor). Things are not always as they seem to be.

Dick Kushner - JACG President

The March Meeting

This meeting began with a three ring circus. There was an Atari 1200 on display for everyone to look at, a demonstration of the Bit-3 80 column board and also slides from the Winter Consumer Electronics Show (thank you, Arlan, for finally sending the slides!). All three exhibitions were going on simultaneously.

The president then requested a volunteer to go over all new literature on products that the group receives and then write up a summary for the newsletter. A request was also made for members to check on other, larger meeting places that the group might use. He announced that members could get "JACG" iron-ons for \$2. Dick then discussed the Bit-3 80 column board that was on display, the Edumate light pen, the Austin Franklin 48K memory board and why Austin Franklin was not able to come to the meeting to demonstrate his new 80 column board (he will definitely be at the April meeting).

The Secretary then reported that we mailed out the March newsletter by bulk rate mailing (377 mailed) and that we saved about \$100 compared to last month. He reported that a few had received their newsletters and others should have theirs within about one week. The Treasurer reported that we had 311 paid members prior to the meeting and \$2533 in the treasury. The Chief Librarian reported that the disk library is now shaped up and work is underway to get the tape library up to date.

Art Leyenberger then gave an overview of word processors, Rich Rospond demonstrated Letter Perfect, Dick Kushner showed AtariWriter and Gil Marcus demoed a BASIC word processor that he had written.

We finished up with a discussion of the pros and cons of the Atari 1200 with input from Vince Murphy who has been using one for a couple of days. The general concensus on the 1200 was not very favorable, with incompatibilities with 800 software among the chief problems.

J A C G Newsletter Advertisements
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The Jersey Atari Computer Group Newsletter will accept advertising on a first-come and space-available basis. Camera ready copy, accompanied by payment, must reach the Editor by the 20th day of the month preceding publication. JACG reserves the right to make decisions concerning the placement of ads within the Newsletter.

Advertising Rates

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The ATARI 1200XL Home Computer
Reviewed by Vincent T. Murphy - JACG

Through the courtesy of Phil D'Ambola of Earthrise Computer Center of Madison, N.J. I was given the use of an Atari 1200XL for one week. I will now give you my impressions of this sleek looking computer.

First lets look at its appearance. It is smaller than the 400/800 in all three dimensions and weighs less. There is one cartridge slot and it is on the left side with no door to open. If you remove or insert the cartridge the computer reboots itself automatically. There is no need to turn the power on or off. Also on the left side of the computer are the on/off switch, and two, not four controller ports. There are no openings on the front or right side. On the rear of the computer are the channel selector switch, monitor jack, TV cable plug and serial port. The cable that connects the computer to the TV set has an RCA phono plug on both ends. The advantage of this is that the cable can be completely removed from the computer unlike the 400/800.

The four yellow keys (SYSTEM RESET, OPTION, SELECT, AND START keys) have been relocated to just above the keyboard as metal recessed pushbuttons. These keys are part of the 11 keys used on this new computer. The BREAK key and the ATARI logo key have also been relocated as part of this group. Five new keys have been added and are a HELP key and four function keys.

The HELP key if pushed with out any cartridge present causes the computer to go into a self-diagnostics mode. It first displays a menu with four options:

1. MEMORY TEST
2. AUDIO-VISUAL TEST
3. KEYBOARD TEST
4. ALL OF THE ABOVE

The memory test tests the ROM and RAM memory. The audio-visual test tests all 4 voices. The keyboard test tests any of the keyboard keys for proper operation. Finally the last test performs all of the above sequentially.

The four function keys allow movement of the cursor in all four directions. If used with the SHIFT key they have these other functions:

F1 will HOME the cursor to the top left of the screen without clearing it. F2 will bring the cursor to the bottom left of the screen. F3 will cause the cursor to move to the far left of a line. F4 will cause the cursor to move to the far right of a line.

If used with the CONTROL key they have these functions:

F1 will lock the keyboard so no one can use it. Pressing it again will free the keyboard. F2 will turn off the screen (DMA). This will allow calculations to proceed by up to 35% in speed. F3 will turn off the click of the keyboard. F4 will give you the European character set.

On this machine there is no internal speaker. All of the sounds come from the TV speaker such as the keyboard clicks. Now let's take a look at what's inside the ATARI 1200XL.

Continued on Page 10



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THIS IS A IMPORTANT MESSAGE TO ALL MEMBERS OF JACG.

THE CLUB, IN A EFFORT TO ENHANCE THE FINANCES OF THE TREASURY, IS CONSIDERING LEASING OUT THE MEMBERSHIP LIST TO QUALIFIED BUSINESS'S.

TO PROTECT THE RIGHTS OF EACH MEMBER THE FORM BELOW IS PROVIDED FOR EACH PERSON WHO CHOOSES TO HAVE THEIR NAME REMOVED FROM THAT LIST.

JUST FILL OUT THE FORM AND GIVE TO ANY ELECTED OFFICER OR MAIL TO ME AT MY HOME. THE RECIEPT OF THE FORM BY ME WILL INSURE THAT I WILL REMOVE YOUR NAME AND THAT YOU WILL NOT GET THE AD'S AND SALE BROCHURE'S THAT THE COMPUTER & SOFTWARE COMPANIES WOULD SEND. THE FINAL DATE TO HAVE YOUR NAME REMOVED WILL BE THE JUNE MEETING (11 JUNE 1982)

MAIL OR SEND TO:

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CEDAR KNOLLS NJ 07927

THANKS FOR YOUR HELP

AS SECRETARY OF THIS GROUP ,I OFFER A WELCOME TO ALL NEW MEMBERS. THIS GROUP WAS STARTED IN THE INTEREST OF AIDING EACH OTHER GAIN KNOWLEDGE AND ENJOYMENT FROM THEIR COMPUTER. IT GOES WITHOUT SAYING THAT MANY OF US DO NOT KNOW EVERYTHING ABOUT THESE MACHINES OR WE WOULD NOT BELONG TO THE CLUB. SO IF YOU BOUGHT YOUR MACHINE IN K-MART OR NEIMAN-MARCUS,ARE IN THE 8TH GRADE OR GRADUATE SCHOOL,IT IS IMMATERIAL.WE ALL ARE IN THE SAME BOAT AND ALL ARE EAGER TO LEARN FROM EACH OTHER. WE ALL HAVE SOMETHING TO CONTRIBUTE.

WE ARE AT 325 MEMBER AS OF THE 1ST. OF MARCH.

SEE ALL OF YOU AT THE MEETING.
ED PICCIUTI
SECRETARY

I WISH MY NAME NOT TO BE PROVIDED
TO ANYONE OUT SIDE THE JACG.

NAME.....

ADDRESS.....

ATARI TUTORIAL
by Dick Kushner

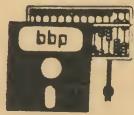
In this installment of the tutorial I will attempt to outline for the new disk user some of the dos and don'ts for disk handling. To do this we need to start at the beginning....

In the beginning everything was dark. The TRS-80 was on a rampage in the land and the Apple tree had just begun to grow. In California, the land of nuts, an intrepid band of explorers gathered to plan the Atari. At the last minute they realized that they needed a disk drive to go with their wonderful machine and, thus, was born the 810. It's early months were plagued by getting production and revolutions per minute up to speed. As it matured, however, its flaws were covered up with bandaids and the laughter of its playmates dwindled to an occassional twitter. 810 was always slower than its friends, but they grew bored with teasing him about it and he grew up to live a peaceful, but uneventful life. Seeing this weakness, however, the lone gunslinger from Texas (Percom by name), moved in and took away many of 810's friends. For not only was Percom able to do all of 810's jobs, he only ate half as much disk space.

All this time, many people worked to make disks for 810, Percom and all the other disk drive family to use. Try as they might, however, sometimes the disks just wouldn't do their job. So, finally, we get to the main purpose of this report - how to reclaim a nonworking disk. To do this we need to understand how a disk is constructed. At this time, please take out one of your disks, preferably the one that has no backup. Using a

sharp razor blade or knife, make a slit along the edge where the label is. Now separate the cover and look inside to see the disk, which resembles an undernourished 45 rpm record, nestled in a nice, soft white blanket top and bottom. Remove the disk and inspect it in bright light. With some experience you will be able to read the grooves and determine which program resides where, but for now put it aside and feel the nice white blanket. If you want, you can take it with you when you take your nap. Next remove the blanket, rinse it in Woolite and put it on a towel to dry. Returning to the disk, put it in your dishwasher and run it through the short cycle wash but don't dry it. The heat of the dishwasher drying cycle will probably cause bits or even bytes to evaporate off the surface of the disk, leading to dreaded "read" errors. Instead, put a paper towel on each side of the disk and press it on page 637 of the 1982 edition of Funk & Wagnalls dictionary. Alternatively you can store it in a mayonaise jar on the back porch of Funk & Wagnalls. When dry, insert it back in the folder (with the newly washed blanket in place) and tape the whole thing together along the cut edge. Presto, you have restored your seemingly lifeless disk to a new life.

That's all for this installment of our continuing tutorial. Next month we will discuss that controversial topic - "Which is better - the Hayes Smartmodem or two tin cans and a string?" Until then, remember that a computer does what you tell it to do, not what you want it to do.



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PLANET MISSIONARY by *Magical Software*
Reviewed by Arthur Leyenberger - JACG

How many times have you seen a new game at a computer store or a friend's house that really blew you away and prompted you to go out and buy it immediately? OK, put your hands down. Now, how many times has that same game that originally knocked your socks off failed to elicit a response greater than a yawn after only a few hours of play? Right, I thought so. I've had the same problems. Sure, there are some classic games like Super Breakout, Space Invaders, Missile Command, etc. that have essentially a timeless quality that appeal at least to me, at irregular intervals, say every few months, but the majority of computer games become BORING after only a few hours of play. Well, there is this new game, see, that is really awesome. I said *A W E S O M E ! ! !*. There has never been anything like it and I hope that it is an example of things to come. The game: PLANET MISSIONARY by Magical software.

According to the users guide that accompanies Planet Missionary (PM), this program "...uses a dynamic time warping algorithm which results in an incredible increase in game speed and the ability of the software to allocate more of its time to the graphic displays". What that techno-babble means is that this game is super-fast and has the most terrific graphic displays that I have seen in any game on any machine. Let me tell you about the game.

The game starts out with a Star Raiders type of view out of the front of your ship with the addition of the lower portion of the screen given over to a display of ships controls. Each command that you enter is reflected both in the movement of the ship and on the control display. The first exciting thing that becomes apparent is the very real looking planets and asteroids that pass you by. These graphics are of the same caliber as used in Astro Chase by First Star Software.

You have orders from the Intergalactic Council of Churches to proceed to a specified star system, approach a particular planet (that may be hostile, civilized, deranged or whatever) and reform the inhabitants. Once you approach the designated planet and open communications channels, you may be given permission to land, have to negotiate for landing privileges or be attacked by hostile forces while still in orbit. If you happen to be attacked, the battle rages and the view from your ship, the Vatican III, is similar to that of the star fights between the U.S.S Enterprise and the U.S.S Reliant, as seen in the movie, *The Wrath of Khan*.

Should you be able to land on the planet, you will see the most stunning landing sequence ever before depicted on a video screen. Once you have safely landed, (it does take skill to land your ship - why do you think it is called the Vatican III?) PM becomes a mini adventure, where you have to find out where the major population centers are, who the decision makers are, what type of religion currently exists, and decide on a strategy of how to best

accomplish your goal of converting the entire planet to the religion of Universal Truth. You have several alternatives to use in the conversion process. Education, medical care and farming are just some of the techniques at your disposal. A description of these techniques would be too lengthy to include here. Should you succeed in converting at least 60% of the population, a special surprise happens on the screen (I'm not going to give it away).

To summarize, this game is challenging, exciting, satisfying, has multiple play fields, is relaxing and definitely the best game of the year, if not the decade. Best of all, the PM graphics are really awesome.

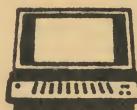
Planet Missionary requires 40k, a joystick and costs \$39.95 (disk only). Perhaps we can get together a group purchase of this awesome new game.

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Writing for the JACG Newsletter
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The JACG Newsletter seeks hardware and software reviews, tutorial articles, programs and any other information of interest to Atari computer users. Material should be sent to the Editor (see back page of this Newsletter for address) and conform to one of the following formats:

1) LJK Letter Perfect files on disk, 2) Text Wizard files on disk, 3) 4-1/2 inch column, single-spaced, dark black ink, right justified, no printing on perforation and pica font (10 cpi) hard copy, 4) Microtext files on disk, 5) BASIC REM statements on disk, and 6) BASIC REM statements on tape. Anything else will not be accepted, especially hand written or non-justified type written. Figures should be in black ink and camera ready.

The above format options are numbered from 1 through 6. The lower the number of the option you choose in submitting items for the JACG Newsletter, the better the Editor will like you and the sooner the item will appear in the Newsletter.

The Editor reserves the right to make changes, accept or reject submitted material.

MULTIPLICATION FUN
By Lora Van Slyke - JACG

This program will exercise your multiplication skills with numbers from 1 to 12, by numbers from 1 to 12. Timed problems are presented on the screen in either a silent or action (sound & color change) response mode. It is recommended for ages 7 to 12.

The input subroutine, lines 40 thru 170, may be of interest to anyone writing similar skill-type programs. Input possibilities are limited by passing the upper and lower ATASCII parameters in N2 and N1, and number of keystrokes in LIM. Timing is controlled by TMR (0=off, 1=on) and LE, number of intervals (3-second in this program). Input is collected in KEY\$, and if numerical, passed to A. Also, the cursor position should be set prior to branching to the subroutine.

Results can be printed by an Epson printer with Graftrax PLUS. For STANDARD or Graftrax 80 versions code alterations will be necessary in lines 560 thru 600.

```

1 REM ## MULTIPLICATION FUN VER. 2.5 ##
2 REM ## FOR EPSON MX80 PRINTER w/GRAFTRAX+ ##
3 REM ## LORA VAN SLYKE 1-8-83 ##
5 GRAPHICS 2:POKE 710,100:POKE 712,100:POKE 84,3
6 ? #6;" multiplication fun"
7 ? "Version 2.5 January 8,1983"
8 ? " by Lora Van Slyke":E=1000:GOSUB 35
10 CLR :DIM D$(8),STAR$(5),BLK$(2):BLK$=" "
20 DIM N$(9),KEY$(9),S(5,12):FOR M=1 TO 12:FOR LE=1 TO 5:S(LE,M)=#NEXT LE:PCT=#
NEXT M:GOTO 180
35 FOR D=1 TO E:NEXT D:RETURN
40 IF PEEK(764)<>255 THEN 100
50 T1=PEEK(20):IF T1>200 THEN T2=T2+1:POKE 20,0
60 IF T2>LE THEN CLOSE #2:POP :GOTO 359-2#P
70 GOTO 40
80 OPEN #2,4,"K":"KEY$=""":L#
90 IF THR=1 THEN 40
100 GET #2,KEY:IF KEY=155 AND L# THEN 100
110 IF KEY=155 THEN 100
120 IF KEY=M1 OR KEY=N2 THEN 100
130 L=L+1:IF L>LIM THEN 100
140 PUT #6,KEY:KEY$(L,L)=CHR$(KEY):IF THR=1 THEN POKE 764,255:GOTO 40
150 GOTO 100
160 IF N1<47 AND N2<58 THEN A=VAL(KEY$):CLOSE #2:RETURN
170 CLOSE #2:RETURN
180 POKE 201,10:GRAPHICS 17:POKE 710,116:POSITION 0,5:TMR=
190 GRAPHICS 17:POKE 708,54:POSITION 1,7:#6;" PLEASE ENTER YOUR":POSITION 2,10
1? #6;"NAME":;LIM=9:N1=65:N2=9#
200 GOSUB 80:N$(KEY):POKE 201,10:GRAPHICS 1+16:POKE 710,116:POSITION 0,5:TMR=
220 PRINT #6;" this is the",,,,"MULTIPLICATION TABLE PROGRAM whi
ch table would you like to do?"
230 POSITION 1,13:PRINT #6;" your choices are from 1 to 12"
240 POSITION 1,17:#6;"YOUR CHOICE IS":POSITION 9,19:LIM=2:N1=48:N2=57:GOSUB 8
0:M=A
251 GRAPHICS 18:POKE 710,114:#6;" HI ";N$=E=800:GOSUB 3
5? #6;" NOW ENTER":,,,
253 POKE 708,216:#6;" - for a quiet session":#6;"1 - for an actio
n session",,,,
254 ? #6;" your choice is":;LIM=1:N1=49:N2=53:GOSUB 80:LE=A:E=300:GOSUB 35
259 GRAPHICS 18:POKE 709,86:#6;" pick the level you wish to work on":#6;" #:POKE 85,4:#6;"1-WIZ"
260 POKE 85,4:#6;"2-MULT-MASTER":POKE 85,4:#6;"3-INTERMEDIATE":POKE 85,4:#6;"4-AMATEUR":POKE 85,4:#6;"5-STARTER"
270 ? #6;" ? ";LIM=1:N1=49:N2=53:GOSUB 80:LE=A:E=300:GOSUB 35
280 FOR PC=1 TO 10:LET N=INT((12*RND(1))+1):GRAPHICS 18:POKE 710,114:POKE 712,114
300 POKE 709,84:#6;"problems correct":? #6;" given answers"
310 POSITION 3,2:#6;CHR$(PC+143):POSITION 16,2:#6;CHR$(CC+144)
320 POSITION 6,7:#6;M$= X;"N$": #6;R=PEEK(84):C=PEEK(85):LIM=3:TMR=1:POKE 20
,0:POKE 764,255:T2=#
330 N1=48:N2=57:GOSUB 80:POSITION 1,10:IF A=N#M THEN GOTO 369-2#P
340 GOTO 349-2#P
347 POKE 712,5:#FOR M=210 TO 225:SOUND 0,W,10,6:E=50:GOSUB 35:NEXT M:SOUND 0,0,0
349 FOR D=0 TO 3:SOUND D,0,0:#NEXT D
356 ? #6;"INCORRECT":POKE 84,R:POKE 85,C:#6;M=N": #6;E=600:GOSUB 35:GOTO 380
357 X#=0:FOR D=150 TO 1 STEP -3:X=ABS(I-1):SOUND 0,70+(20*I),10,INT(D/10):POKE 71
2,148#X:#NEXT D
359 FOR D=0 TO 3:SOUND D,0,0:#NEXT D
360 POSITION 6,7:#6;"TIME'S UP":POKE 84,R:POKE 85,C:#6;M=N": #6;E=600:GOSU
B 35:GOTO 380
367 E=10:#SOUND 0,61,10,3:GOSUB 35:#SOUND 0,48,10,3:POKE 712,198:GOSUB 35:#SOUND
,41,10,3:GOSUB 35:#SOUND 1,61,10,3
368 SOUND 2,48,10,2:E=50#GOSUB 35
369 FOR D=0 TO 3:SOUND D,0,0:#NEXT D
370 ? #6;"GOOD JOB!!!!!!":CC=CC+1:#6;GOSUB 35
380 NEXT PC:PCT=PCT+1:#6;S(L,E,M)=S(L,E,M)+CC:CCT=CCT+CC:CC=#
390 GRAPHICS 18:POSITION 3,1:#6;"WOULD YOU LIKE":POSITION 6,3:#6;"TO TRY
":POSITION 7,5:#6;"AGAIN"
400 POSITION 0,7:#6;" Y OR N":POSITION 8,9:#6;"? ";LIM=3:N1=65:N2=9#:
GOSUB 80

```

```

410 IF KEY$="Y" THEN GRAPHICS 17:POKE 710,116:POSITION 0,5:TMR=0:GOTO 220
420 GRAPHICS 18:POKE 711,166:#6;" total      total":? #6;"problems corre
ct":? #6;" given      answers";
430 POSITION 2,3:#6;PCT=POSITION 15,3:#6;CCT
440 N=INT((M-50)/10):STAR$="":FOR D=1 TO N:STAR$(D,D)="":NEXT D:POKE 85,10-INT
(N/2):? #6;STAR$#
460 E=200#GOSUB 35:POKE 201,4:GRAPHICS 17:POKE 710,194:POSITION 1,4:#6;"DO YO
U WANT A HARD COPY OF YOUR RESULTS"
480 LIM=1:N1=65:N2=9#POSITION 8,6:#6;"? ";GOSUB 80:#IF KEY$<>"Y" THEN 530
490 POSITION 1,8:#6;"PRINT STARTS AT 40"
500 POSITION 1,10:#6;" is printer on      and loaded":LIM=1:N1=65:N2=9#P
POSITION 8,12:#6;"? ";
505 GOSUB 80:#IF KEY$<>"Y" THEN 530
510 POSITION 1,15:#6;"? ";TYPE IN THE DATE":LIM=9:N1=47:N2=57:POKE 85,6:#6;"MO/D
Y/YR":POKE 85,6:#GOSUB 80:GOTO 56#
530 GRAPHICS 0:POKE 201,5:POKE 82,0:POKE 84,6:POKE 85,18:POKE 752,1:#"LEVEL":?
,,1",2",3",4",5":?
540 FOR M=1 TO 12:#M:FOR LE=1 TO 5:#IF S(LE,M)=# THEN ? "-":GOTO 550
545 ? S(LE,M),
550 NEXT LE:#NEXT M:#"PRESS SELECT TO QUIT":? ;"PRESS START TO PLAY AGAIN"
551 ON PEEK(53279)+1 GOTO 551,551,551,551,551,61#5,551:STOP
560 D$=KEY$:LPRINT CHR$(27);#D";CHR$(70);CHR$(74);CHR$(78);CHR$(82);CHR$(86);CHR
$(90);CHR$(0);CHR$(15)
570 LPRINT CHR$(9);NAME: "#N$;BLK$(1,12-LEN(N$))";"STAR$";"
575 LPRINT CHR$(9);DATE: "#D$;BLK$(1,12-LEN(D$));"SCORE": "#INT(10#CCT/PCT+0.5)
:LPRINT CHR$(9);" PROBLEMS GIVEN: ";PCT
576 LPRINT ;CHR$(9);" ANSWERS CORRECT: ";CCT
580 LPRINT CHR$(9);"LEV": "#1";CHR$(9);"2";CHR$(9);"3";CHR$(9);"4";CHR$(9);"5"
600 FOR M=1 TO 12:LPRINT CHR$(9);M;CHR$(9);S(1,M);CHR$(9);S(2,M);CHR$(9);S(3,M);
CHR$(9);S(4,M);CHR$(9);S(5,M):NEXT M
605 GRAPHICS 0:POKE 84,10:#"PRESS SELECT TO QUIT":? ;"PRESS START TO PLAY AGAIN
":GOTO 551
610 POKE 752,0:POKE 82,2:GRAPHICS 0:END

```

NOTE: Inverse video characters are in ITALICS

J A C G M E M B E R S H I P

The Jersey Atari Computer Group (JACG) invites you to become a member. Dues are \$15.00 per year and entitle the member to 1) Receive the monthly newsletter and when you join, receive back issues of the newsletter as available; 2) Purchase programs from the group's extensive tape and disk librarys at special rates; 3) Join special interest groups or form new ones; 4) Benefit from the expertise and experience of other Atari computer users; 5) Participate in group purchases of software at substantially reduced prices; 6) Receive a membership card that entitles the member to discounts at local computer stores; 7) Attend monthly meetings to learn about the latest hardware and software, rumors, and techniques for getting the most out of your Atari computer; 8) Submit articles and programs to the newsletter and give demos and presentations at the monthly meetings; 9) Participate in sale/swap activities with other members; and 10) Have a lot of fun.

If all of this sounds good then send a check or money order, payable to JACG, to:

Rick Olson
5 Starling Drive
Randolph, NJ 07869

Remember, receiving the JACG Newsletter is just one of the many benefits of being a member of JACG.

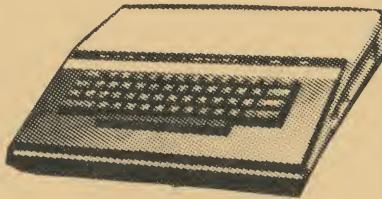


EARTHRISE
COMPUTER CENTER

introduces

ATARI 1200 XL

with 64K



HOME COMPUTER \$749⁹⁵



ATARI 1200 XL System Package

with 64 K includes:

810 Disk Drive reg. '439

10' Printer Cable reg. \$33

850 Interface reg. '\$170

Basic programmer reg. '\$59⁹⁵

Epson MX 80 reg. '499

Visicalc reg. '\$199

NOW \$1899

if purchased separately \$2149⁹⁰



ACE 1000 System Package

with 64K includes:

if purchased
separately \$2695

Ace 10 Disk Drive with controller

NOW

Ace Writer

\$2295⁰⁰

12" Epson Comrex Monitor

Grappler + Interface Card

CITOH Prowriter

also featured this week:

Epson FX80 Printer \$585 reg. '\$695

Epson MX80 Printer \$399 reg. \$499

CITOH Prowriter \$429 reg. '\$499

Elephant Disks- single sided/single density \$20.95 reg. '\$25⁹⁵

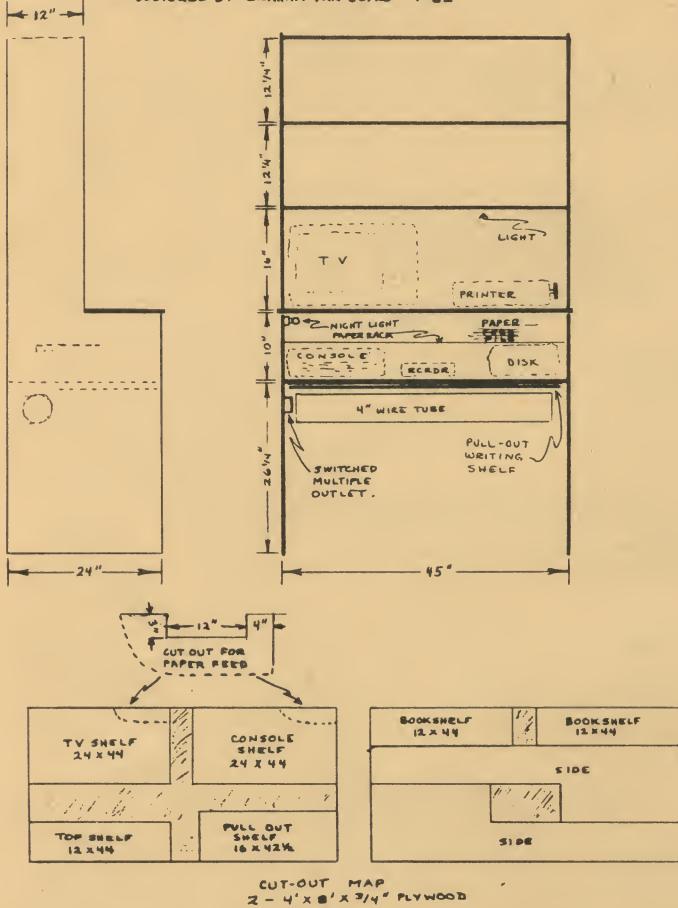
6 Green Village Rd., Madison 377-4084

Monday-Saturday 10-6; Thursday til 8 PM

[A red-faced and dazed Editor apologizes for the omission of this figure from last months Newsletter. This figure accompanies the article, "Home Computer Furniture - Do-it-Yourself" by Graham Van Slyke, JACG Newsletter V2N7P14. Sorry, Graham.

Ed. 3

**PERSONAL COMPUTER EQUIPMENT CABINET
DESIGNED BY GRAHAM VAN SLYKE 7-82**



ATARI ANNOUNCES NEW 6502 INSTRUCTION SET
Art Leyenberger, reporting

At the recent press conference announcing the new Atari 1200XL computer, Atari representative Alan Loofuoy, Eastern Region Vice President of New Product Development, mentioned that the new "designer computer" will contain an expanded instruction set that will greatly expand the power of the 6502 microprocessor. Acknowledging that the impetus for the new opcodes had come from "heavy users", Loofuoy said that these new codes will satisfy their needs. Listed below are just a few of the new codes announced.

BNR - Branch for No Reason
DPW - Don't Let Player Win Game
EDR - Emit Deadly Radiation
FLR - Flash Lights at Random
GMD - Generate Meaningless Data
ICR - Incur Costly Repair
JIL - Jump to Inaccessible Location
LLI - Lose Last Instruction
POP - Punch-out Programmer
RIS - Remain in Subroutine
TEC - Take Extra time for Calculation

Program Chairman's Report by Richard Rospond

I am writing this immediately after the March meeting because I see a conflict between the need to be thorough, the wish to be interesting, and finishing the meeting by 12 or 12:15.

I have listed below the program outline for the next several months, subject to cancellations and other priorities. I believe that the best format will be to cover more topics and demos, but each speaker must be briefer, and cover the main points, not the details. The main topic will be limited to one hour in order to leave time for club business and game demos. I encourage your input, and do not be surprised if you see me cut a speaker off if the topic seems to drag.

Please let me know if we should start the meetings earlier, or let it run to 12:30, have fewer topics, more topics, or whatever your opinion is.

* * * * *

MARCH	Word Processing Overview, Word Processing demos: Letter Perfect, Atari Writer Gil Marcus. Discussion of the new Atari 1200 system. Bit 3 80 Column board
APRIL	Demo of Austin Franklin 80 column board Visicalc demonstration ATARI Service- Chris Ahlers
MAY	Demos of educational programs An overview of Structured Programming
JUNE	A special program of games (see newsletter)
JULY	A program on modems and communications software

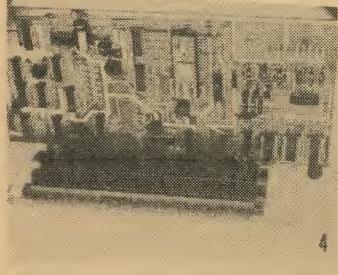
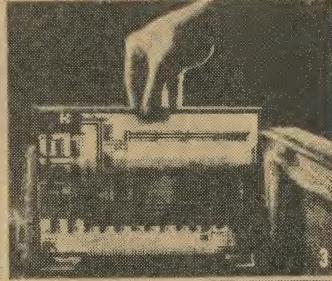
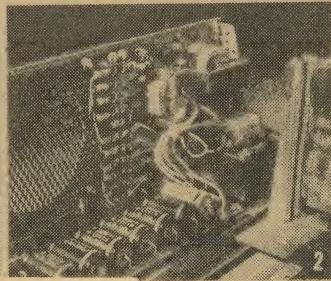
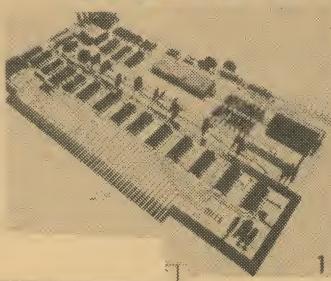
AND MUCH, MUCH MORE TO COME

If you have something interesting that you would like do demonstrate, please contact me at: 635-2936.



New ATARI 837 Interactive Car Lift

INSIDE the Altair Computer



1. Central Processing Unit (CPU) Board. This double-sided board is the heart of the Altair. It was designed around the powerful Intel 8080 microprocessor—a complete central processing unit on a single LSI chip using n-channel silicon gate MOS technology. The CPU Board also contains the Altair System Clock—a standard TTL oscillator with a 2.000 MHz crystal as the feed-back element.

2. Power Supply. The Altair Power Supply provides two +8, a +16 and a -16 volts. These voltages are unregulated until they each the individual boards (CPU, Front Panel, Memory, I/O, etc.). Each board has all the necessary regulation for its own operation.

The Altair Power Supply allows you to expand your computer by adding up to 16 boards inside the main case. Provisions for the addition of a cooling fan are part of the Altair design.

3. Expandability and custom designing. The Altair has been designed to be easily expanded and easily adapted to thousands of applications. The basic Altair comes with one expander board capable of holding four vertical boards. Three additional expander boards can be added inside the main case.

4. Altair Options. Memory boards now available include a 256 word memory board (expandable to 1024 words), a complete 1024 word memory board, and a 4,096 word memory board. Interface boards include a parallel board and 3 serial boards (RS232, TTL and teletype). Interface boards allow you to connect the Altair Computer to computer terminals, teletypes, line printers, plotters, and other devices.

MITS Altair Computer Report II

MITS Announces Lower Memory Prices!

On July 1, 1975, MITS lowered the price of the Altair 1K Static Memory Card (88-1MCS). The kit price was dropped from \$176 to just \$97 while the assembled price was dropped from \$209 to \$139.

This price reduction was made possible by a reduction in the price of the Altair 1K 8101 memory chips.

Also affected was the price of 88-MM 256 byte (word) memory modules. The \$53 kit price was lowered to just \$14 and the \$61 assembled price to \$26.

Altair BASIC—Not Just Anybody's BASIC

Altair BASIC is an easy-to-use programming language that can solve applications problems in business, science and education.

You will find that with only a few hours of using BASIC that you can already write programs with an ease that few other computer languages can match.

Altair BASIC doesn't compromise power for simplicity. While it is one of the simplest computer languages in existence, it is also a very powerful language.

ALTAIR BASIC comes in three versions. The first of these is a 4K BASIC designed to run in an Altair with as little as 4,000 words of memory. This powerful BASIC language has 6 functions (RND, SQR, SIN, ABS, INT, and SGN) in addition to 15 statements (IF . . . THEN, GOSUB, RETURN, FOR, NEXT, READ, INPUT, END, DATA GOTO, LET, DIM, REM, RESTORE, PRINT, STOP) and 4 commands (LIST, RUN, CLEAR, SCRATCH).

The second ALTAIR BASIC option is the 8K BASIC designed to run in an Altair with as little as 8,000 words of memory. This BASIC language is the same as the 4K BASIC with 8 additional functions (COS, LOG, EXP, TAN, ATN, INP, FRE, POS) and 4 additional statements (ON . . . GOTO, ON . . . GOSUB, OUT, DEF) and 1 additional command (CONT). This BASIC has a multitude of advanced STRING functions and it can be used to control low speed devices—features not normally found in many BASIC languages.

The third ALTAIR BASIC is the EXTENDED BASIC version designed to run on an Altair with as little as 12,000 words of memory. It is the same as the 8K BASIC with the addition of PRINT USING, DISK I/O, and double precision (13 digit accuracy) add, subtract, multiply and divide.

Altair BASIC is only the beginning. MITS is currently engaged in an extensive software development program. Other software now available includes an Assembler, System Monitor, and Text Editor.

Altair software comes with complete documentation.

One Month Specials

The Altair Users Group is quite possibly the largest computer hobbyist organization in the World. It is both a means of communication among Altair Users and a method of building a comprehensive library of Altair programs. All Altair 8800 owners are entitled to a free, one year membership in this group.

For one month only, you can become an Associate Member for one year at a reduced rate of \$10 (regularly \$30). Among other benefits you will receive a subscription to the monthly publication, Computer Notes, which contains complete update information on Altair hardware and software developments, programming tips, general computer articles and other useful information.

Now available is the Altair Software Documentation Book I which contains technical data on the Altair Assembler, Text Editor, System Monitor and BASIC language software. This documentation is free to purchasers of Altair BASIC. For one month only, it is being offered for only \$7.50 (regularly \$10).

The 1K Static Memory Card contains 1024 bytes of memory with a maximum access time of 850 nanoseconds.

Now ready for production is the new Altair 2K Static Memory Card (88-2MCS) with 2048 bytes of memory. Like the 1K Static Memory this new card contains memory protect features and provisions for disabling the ready.

It has a maximum access time of 850 nanoseconds and is engineered with the finest components available. It is inexpensively priced at \$145 kit and \$195 assembled.

HARDWARE PRICES:

Altair Computer kit with complete assembly instructions	\$439
Assembled and tested Altair Computer	\$621
1,024 Byte Static Memory Card	\$97 kit and \$139 assembled
2,048 Byte Static Memory Card	\$145 kit and \$195 assembled
4,096 Byte Dynamic Memory Card	\$264 kit and \$338 assembled
Full Parallel Interface Card	\$92 kit and \$114 assembled
Serial Interface Card RS232	\$119 kit and \$138 assembled
Serial Interface Card (TTL or Teletype)	\$124 kit and \$146 assembled
COMTER II*	\$780 kit and \$920 assembled

*The Comter II Computer Terminal has a full alpha-numeric keyboard and a highly readable 32-character display. It has its own internal memory of 256 characters and complete cursor control. Also has its own built-in audio cassette interface that allows you to connect the Comter II to any tape recorder for both storing data from the computer and feeding it into the computer. Requires an RS232 Interface Card.

SOFTWARE PRICES:

Altair 4K BASIC	\$350
Purchasers of an Altair 8800, 4K of Altair Memory, and Altair Serial I/O or Audio-Cassette I/O	ONLY \$60
Altair 8K BASIC	\$500
Purchasers of an Altair 8800, 8K of Altair Memory, and Altair Serial I/O or Audio-Cassette I/O	ONLY \$75
Altair EXTENDED BASIC	\$750
Purchasers of an Altair 8800, 12K of Altair Memory, and Altair Serial I/O or Audio-Cassette I/O	ONLY \$150
Altair PACKAGE ONE (assembler, text editor, system monitor)	
Purchasers of an Altair 8800, 8K of Altair Memory, and Altair I/O ONLY \$30	

NOTE: When ordering software, specify paper tape or cassette tape.

Warranty: 90 days on parts for kits and 90 days on parts and labor for assembled units. Prices, specifications, and delivery subject to change.

MAIL THIS COUPON TODAY!

<input type="checkbox"/> Enclosed is check for \$ _____	<input type="checkbox"/> BankAmericard # _____	<input type="checkbox"/> Master Charge # _____
<input type="checkbox"/> Altair 8800	<input type="checkbox"/> Kit	<input type="checkbox"/> Assembled
Include \$8 for postage & handling		
<input type="checkbox"/> Altair Users Group Associate <input type="checkbox"/> Software Documentation		
<input type="checkbox"/> Please send free literature		
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MTS
"Creative Electronics"

The AtariWriter Word Processor
A First Look
by Dick Kushner-JACG

Atari has finally come out with a product that addresses the need of a large group of Atari computer owners - an easy to use, difficult to misuse word processor that can be used in its simplest form or exercised to bring out its more advanced features.

The AtariWriter comes on a 16K cartridge and appears to be based on the Text Wizard word processor (there is the persistent rumor that they both have the same author). It is relatively inexpensive (under \$100) and is reasonably easy to learn. There is one menu that controls the major functions and a number of letter combinations with the CONTROL key to perform other tasks. It appears to be very well error trapped and has no fatal flaws that I could detect.

Like all word processors, you type on the blank screen "page", using the return key only when you want to start a new paragraph (CONTROL-P gives you a "paragraph sign () which is interpreted as a five space indent). You haven't gained much over a typewriter at this point, but, when you go to edit mistakes or modify the text, you begin to appreciate a computer word processor. You can easily move around the text in small steps (one character at a time), in large steps (one screen page at a time) or in giant leaps to the beginning or the end of the text. When you get where the change or correction is to be made you can delete or insert to your heart's content. Note that you are always in the "insert" mode, i.e., typing more letters in the middle of an existing word will insert the newly typed letters and move all subsequent text downstream (text is never "lost" by overtyping it). You can also move blocks of text around or delete text by blocks.

The AtariWriter works with a 36 column by 21 line screen "page" which has indications of the current print formatting above it (i.e., margin width, page width, print font, etc.) and arrows marking the TAB positions and an indicator of the current row and column position of the cursor along the bottom. A very nice feature is the "print preview" option (called by CONTROL+P) which formats the screen display exactly as it will print on paper. It does this, inspite of the 36 column limitation, by giving the user a view through a 36 by 21 "window" that can be moved around to show the entire formatted page. Very nice, Atari! Note that editing cannot be done while in this mode.

A request to print to paper gets you a request for printer type from among four Atari printers. Shortly after this product hits the market (probably as you read this), there should be a disk of printer drivers in the APX library that will allow you to configure the program to use your printer (since many of you have Epsons, C-Itohs, etc.). This will be an essential addition to make this product complete.

I was impressed with the failsafe messages that are contained in the program. In cases where you might erase memory or write over an already existing file, you are warned and given an opportunity to take back your decision. Other extras are the ability to get a printed copy of the file index, send files over a modem to someone else with the AtariWriter and the compatibility with disk and tape.

A more extensive review is in preparation for publication in a computer magazine, but first impressions are often the most accurate and I find that for the vast majority of Atari owners, AtariWriter will prove to be a very useful product indeed.

↓ ATARI 1200XL ↓

This machine comes with 64K of memory which cannot be expanded. Although this machine comes with 64K, if you load in the basic cartridge you have 37902 bytes which is the same as the 400/800 with basic. There is a software switch which will allow the operating system to be bypassed. If this is done without a cartridge being present then 62K will be available to the user. However, in order to use the computer the user must write their own operating system.

The new operating system is 16K instead of 10K. This extra 6K is used by the HELP key for self diagnostics and for the four extra graphics modes. Besides having graphics modes 0 through 8 and GTIA modes 9 through 11 the new computer has graphics modes 12 through 15. Graphics modes 12 and 13 are 5 color text modes and graphics modes 14 and 15 are 1 color and 4 color graphics modes respectively.

Now I will describe some of the problems I had while using this machine.

My first problem was with 3rd party cartridges. Since the cartridge slot is so narrow some of the 3rd party cartridges would not fit in the slot and could not be used. Although the ATARI cartridges fit okay.

My next problem was with 3rd party software on disk. Some of the software which I use quit frequently would not load on the new computer.

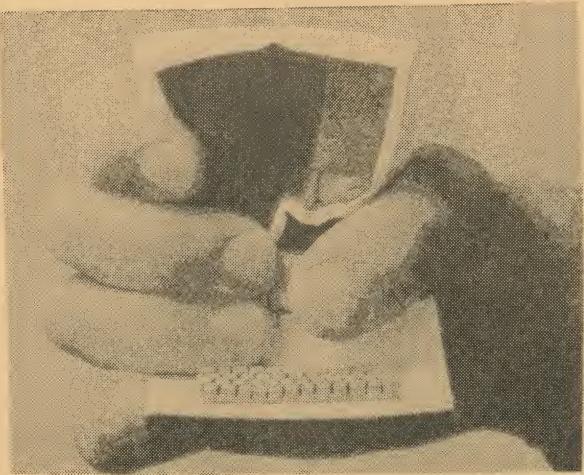
Examples are Filemanager 800+ and Letter Perfect. Although Financial Wizard did execute properly.

Another problem was with game disks.

Between the old CTIA chip and the new GTIA chip there was a shift of one color clock. This caused a change in colors for the 800. With this new computer there appears to be a shift of one color clock again giving back the same colors found on the CTIA chip.

Another problem was that some autorun sys disks would not execute properly. Also let me say that this computer comes with out the basic cartridge or books. It does come with a full color brochure that tells how to use the keyboard and self diagnostics but not much else. No where can you find out about the 4 new graphics modes.

To sum up I believe that if the ATARI 800 was packaged in the same package as the 1200XL and for the same price it would be an instant seller.



STILL ANOTHER NEW ATARI COMPUTER
Arthur Leyenberger, Reporting

In an attempt to not only meet but also crush the competition, Warner Communications has announced another new home computing appliance. Called simply the Atari 800e (E for eclosion), this new computer will offer features previously found only on competitor's, more expensive, machines. In a stroke of marketing and reverse engineering genius, the Atari 800e (code named, "the lemon") brings the home computer neophyte into a bold new era of computer design.

One of the features of this new machine is the replacement of only 4 integrated circuits (GTIA, POKEY, ANTIC and 6502) with over 80 MSI circuits to increase the chip count and help use up some of the excess capabilities of the power supply. In fact, users will now be permitted (even required) to install a neat, external fan, from some after-market company in order to prevent the circuit boards from self destructing.

In addition, a lot of features and capabilities were removed from the older Atari 800 design to be more compatible with the existing competition. For example, the 800e comes only with upper case letters. It was felt by corporate designers that case letters only got in the way, and that they took up extra room, anyway. Another feature of the older machine that was changed is the reset key. On the new machine, the RESET key was moved closer to the main keyboard, so the user would not have to reach as far. Also, the protection for inadvertently pressing this key was removed, to make it easier to press.

The special function keys (START, SELECT and OPTION) were removed because it was felt that the user-friendly trade-offs were too expensive and that they detracted from the sleek appearance of the computer unit. Finally, the 4 cursor control keys were reduced to only 2 keys - left arrow and right arrow - to help give the keyboard that uncluttered look, so popular with today's modern computer user.

All of the above changes were accompanied by a new suggested list price of only \$1399.00. It was explained by Atari marketing execs that this new higher price was more competitive and that Atari would be "silly" not to rely on the tremendous market appeal of the company's name and its lengthy presence in the home computer market.

#####
JACG REVIEW
#####

Heart Attack
from Terminal Software
Requires 48K and 120 Volts
Reviewed by Dick Kushner

Are you bored with the maze games? Do the shoot-em-up games put you to sleep? If you see one more adventure game, will you vomit?

Then Heart Attack is probably for you. This electrifying game comes to you from the author of Death Maze and Car-Pedestrian Collision Dynamics.

The premise of the game is deceptively simple. You use the modified joystick connectors to attach your Atari joysticks to both sides of the 120 Volt line that is at each and every wall outlet in your house. Thus, the shoot-em-up game is portable and can be played anywhere in the house. Also there are optional connectors included for using just about any joystick that is on the market. You can see, therefore, that

Having made the required connections you to boot up the disk (or CLOAD the tape) and you are presented with a very clear Menu of options. There are 17 levels of play, so that even a beginner can get a charge out of this

game. Each level has a series of questions for you to answer by using the joystick to select from among the possible answers shown on the screen. An incorrect answer is punished by the player getting a prescribed level of current for a prescribed period of time. After each incorrect answer the level and time increase until...you guessed it...the user suffers a mild or severe heart attack, depending on his/her age and physical condition.

The very complete instruction manual suggests several variations on the basic game, including one very interesting one for groups, where the remaining players attempt to do CPR on the losing players. There are a number of colorful diagrams in the manual showing the dos and don'ts of how to do this. Another variation suggests that a group of people join hands, with one person on each end making contact to the joystick (which must, by the way be used in port #2). The author encourages comments and suggestions for improving this dynamic, electrifying new game.

Overall I would rate this at a 7 on a scale of 10. The documentation is superb, it is very user friendly and it can be played by groups. However, I found that the constant playing of the music in the background got to be quite annoying. Oh, by the way, the music used is the Funeral March.

The Edumate light pen (from The Programmer's Institute in North Carolina) is a very inexpensive, very simple light pen. It makes no pretense about being a full featured light pen and is designed only to be used to select menu options and answers to questions. The manual clearly states that "it is not intended to be used as a drawing device for high-resolution modes". Therefore, it must be judged on that basis and I find that it does meet its intended goals. The range of prices for Atari light pens is from \$10 for a "do-it-yourself using an empty ballpoint pen" model to about \$150 for the Symtek, with the Edumate at less than \$30 definitely in the bargain basement.

Memory locations 564 and 565 are used to find the location of the light pen on the screen. This information can be incorporated in a program in any way the writer chooses. Obvious applications are menus and questions with multiple answers.

The Edumate light pen comes with a disk or tape containing several programs that not only use the pen but show you how to use it also. I did find that using this light pen requires that you increase the brightness of the TV picture in order to get a reasonably accurate response, but not to the point of this being an annoyance. The limited sensitivity is probably good because there is no on/off switch on this product and "off" means just pulling the pen away from the screen. If the sensitivity were too high you would get a response before you had placed the pen on the screen where you wanted to. That would be an annoyance!

I received this light pen before all the software that will come with it had been developed. I understand that there will be a drawing program included with the package. I'm not sure, however, why anyone would want to use a light pen for drawing. Try sitting at a desk and holding your arm out in front of you as if you were drawing on the TV screen sitting near your computer. A little awkward isn't it? Perhaps if you held the TV in your lap it would feel better, but then the weight would be a bother. If that were not enough, the horizontal resolution of light pens is not really good enough for high resolution drawing. I think you get my point that light pens do not represent the ideal computer/drawing interface.

If you want to experiment with a light pen, however, and still have money left over for the rent, you might try the Edumate. At about \$20 each (in quantities of more than five) you can add another weapon to your arsenal of computer peripherals.

I want to thank the Programmer's Institute for sending me this light pen to demonstrate for the members of JACG.



Kudos to the Jersey Atari Computer Group Newsletter, December 1982 issue, in the silk-purse-out-of-sow's-ear department. Coming up with an inch and a half hole after all the articles were laid down, the staff chose to flaunt it rather than fake it. In the process, the newsletter provided its readers with a thought-provoking paradox. Here, reprinted with permission, is the JACG Newsletter's profound blank space:

THIS SPACE INTENTIONALLY LEFT BLANK

The newsletter is definitely a newsletter in format, size, and paper stock, for example, but it's slick by virtue of pretty well written and informative articles. Could this be the *Call-A.P.P.L.E.* of the Atari world in the making?

The Jersey Atari Computer Group swings in High Bridge, New Jersey. If you live around those parts, love your Atari, and wonder what a user group is, or what a jersey is, or what a high bridge is, you might get in touch with **Richard Kushner**, JACG's president, to see what they do and whether they'll let the likes of you do it too. His phone, in the evening, is (201) 638-8732. That's presumably his phone in the daytime too; call then if you like listening to the no-answer ring.

More numbers of the evening, and full-time addresses, are: (201) 366-8682, 5 Starling Drive, Randolph, NJ 07869; and (201) 887-2861, 40 Lawrence Road, Parsippany, NJ 07054. The first is for treasurer **Rick Olson** who's always got a hand out for \$15 dues, which'll get you the newsletter and other good things, even if you live too far away to attend meetings; the second is for newsletter editor **Art Leyenberger**, who's the person to scream at if you don't like an article ("This month, I hate the, and you printed four hundred twenty-six of them!") and the person to submit manuscripts to if you think you can do better (or as well).

46 / January 1983

WAR

knock either one of them. Realize that if either computer is used for something it's not good at, you'll get a bad impression of it. Picture an Apple trying to perform a rendition of Beethoven's fifth symphony out its little internal speaker. Or someone trying to do voice recognition with an Atari. Or a PET owner attempting color graphics.

Whenever someone calls your Atari a game machine, inform him that he is narrowminded and that he should have more respect for other people's equipment. Don't start into the superiority of Atari graphics, as that will surely start a major argument. When someone insults your equipment, don't insult their equipment. Just say something that will make them feel like a jerk for saying anything against your machine. When you get to the bottom line, there's no real difference between an Apple owner who has a Z-80 softcard and an Atari owner who has 256 colors, as long as their both happy with and use what they've got.

DON'T FORGET

J A C G BULLETIN BOARD

(201) 377-4084

Monday-Sunday: 9:00pm - 9:00am

THE OTHER SIDE OF THE FENCE

by Bob MacDowell

War and Peace

Welcome to what I hope will become a regular column in the MACE newsletter. I call it "The Other Side of the Fence" because, of all things, a fruit. You see, there are the Atari owners, and there are Apple owners. And betwixt them there is a fence of hardware and software incompatibility, and even social snobbery. Well, I own an Apple II, which puts me on The Other Side of the Fence. I program the Atari 800 professionally for a company in Troy called K-Byte. You may have heard of us: we make K-razy Shootout.

The topic for this month is War and Peace. It's about why Apple and Atari owners, at least the more fanatical ones, don't like each other, and why they should.

Craig Chamberlain wrote a rather good article about Microsoft Basic in the February newsletter, but I feel he used the last page of the article primarily to cut down the Apple. He showed the time that the Apple and Atari BASICs took to do a benchmark. Apple won by about 2%, so he wrote, "Yes, the APPLE is faster but remember that no benchmark is totally fair." Well, Craig, if benchmarks aren't totally fair, what is? The reason Apple won is because Applesoft is designed for speed, not for power or ease of use. More powerful languages will run slower, because they're more complex. Further down, Craig said that Apples can't turn off DMA. He's right. You see, Apples don't do DMA in the first place, so they can't turn it off. (DMA means stopping the microprocessor to give the video circuitry time to get information from memory. In other words, DMA slows down your processor.) Anyway, the Apple doesn't need DMA to slow it down. It's slow enough already. Craig remarked at the end, "... ATARI is the way to go." I think we'll all agree with him there, at least in terms of what we want to do with a computer.

Have you noticed that no one's compared the Atari to the TRS-80 Color computer? Or

the IBM-PC? Or the Exidy Sorcerer, the TRS-80 Model 3, TRS-80 Model 2, TRS-80 Pocket, Sinclair ZX80, NEC, Xerox, PET, CBM, VIC, TRS-80 Model 16, Osborne 1, VideoBrain, Hewlett-Packard, Apple III, Northstar, Alpha Micro, Altair, Interact, Kim-1, Hitachi, Aim-65, Texas Instruments, Heathkit H-8, H-88, H-89, H-11, and that's off the top of my head. The point is, with all those computers out there, why do Atari owners pick on the Apple, and Apple owners pick on the Atari? Why not determine which of the computers listed above is the greatest waste of silicon and then everybody pick on it? For that matter, why pick on any computer at all?

Perhaps people who buy Apples or Ataris were so unsure about which of the two to get that they must cut down the computer they didn't get just to reassure themselves that they made the right decision. There has always been a lot of haggling between Atari and Apple owners about which computer is better. Apple owners started it. When the Atari 400/800 were first introduced, the Apple community's reaction was WOW! Another T.V. game. They figured who'd waste \$995 on an 8K computer made by a video game company? After all, its graphics COULDN'T be better than the reference standard Apple hi-res graphics. Besides, why trust a company who did not provide technical documentation?

Eventually, Atari did release their documentation. Apple owners were very interested in these manuals, since they had noticed certain phenomena in Star Raiders and Basketball which they couldn't figure out. Unfortunately, the Apple people were having some problems with the terminology. "What's vertical blank? And what are interrupts? What do color registers do? What are these funny things called Players? And Missiles? 1.8 MHz? Not bad. Holy cow, lookitall those graphics modes. Who's ANTIC? Hey, look, Atari's coming out with a new home computer. It's called POKEY..."

Apple owners quickly figured out that the Atari was up-and-away the most awesome graphics machine that could be afforded. What everyone failed to realize, in their jealousy or whatever, was that the Atari and the Apple are really quite similar. This involves getting into some history, so here goes.

A long, long time ago, in 1973, there existed the first computer club - the Homebrew Computer Club.

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Back then, the way you built a computer was to get an 8080 microprocessor and build a processor board. Then you built - and I mean scratch built, not like Heathkit - a couple of memory boards and an input/output board or two. Plug all these into a common bus, add a teletype terminal and a front panel (to enter programs - ROM didn't exist back then), cross your fingers, and apply power. If nothing blew up, you could throw switches on the front panel so as to program in a bootstrap program which would let you read in an operating system off of a sophisticated storage device like paper tape. Of course, it had to be a small operating system; you only had 1 or 2 k of memory.

Anyway, one member of this computer club was named Steve Wozniak ("the Woz" for short) and he worked for Atari. When he built his computer, he made it very different from everyone else's. He used the brand-new, faster, and more powerful 6502 processor, which he had used at Atari, instead of the 8080. He designed it around new, state-of-the-art 4k dynamic memory chips and left provisions for use of 16k dynamic chips which were supposed to become available in a few years. He left room in his computer for three banks of these memory chips, for a total of 12k, or 48k with the 16k chips. He also tried using ROMs to hold, permanently, not just the operating system, but the BASIC language as well. Woz was not content to use the latest in technology, he had to design his computer as no one had done before. He added sound to his computer. But to top it all off, he added a video display to his computer. His idea was to have the video circuitry use main memory for its display memory. The other members of the computer club were astonished. Video terminals were not unheard of, but video COMPUTERS were. The processor had immediate access to all of the screen memory, and could change any of it with a single instruction. But Wozniak's coup de grace was graphics. Oh, not just ordinary graphics, that would be merely exotic. They were COLOR graphics!!

A colleague of the Woz, Steve Jobs, saw that such a machine could be manufactured and sold to the general public, for a handsome profit! Jobs turned out to be right. Woz's machine was the first personal computer. Now,

if you think Woz's machine was the forerunner of the Atari 800, you're half right. After Atari was sold to Warner Communications in 1976, somebody high up decided to improve on what Wozniak had done and offer it for sale, which Atari did. By the way, Steve Wozniak left Atari before then and joined with Steve Jobs to found Apple Computer.

The Apple was first meant to be a hobbyist's machine. It was designed by a hobbyist, Steve Wozniak, for a hobbyist, Steve Wozniak. So the Apple should be a rather good machine for someone who likes to poke around under the hood with an oscilloscope, or wants to make his own plug-in board for a special purpose. Matter of fact, the Apple is designed for such creativity; that's what the peripheral bus along the back of the motherboard is for.

Apple Computer soon discovered that the hobbyist market was not the most lucrative, and they decided to install a more powerful BASIC language into the Apple II and sell it as the Apple II Plus. Their target was the consumer and business markets. The Apple made a rather nice business computer, when outfitted with an optional 80 column video display and the right software. It was a machine in the personal computer price range that did most of the things small businesses needed.

Atari targeted the 400/800 at the same markets as Apple did. However, the 800 really wasn't very successful as a business computer, despite the nicer keyboard. I/O was too slow, the 800 couldn't have 80 columns until just recently, and didn't have the large quantity of business software available that the Apple II or III, or the TRS-80 Model II had. That's why Atari cancelled the 815 dual disk drive. It was meant for the business market, which never materialized.

Atari attracted a lot of hobbyists (including me) with its incredible graphics, but the consumer market is where the Atari really shines. It's cheaper than a comparable Apple or TRS-80, and it works well for the person who wants to slap in a cartridge and play games, or the person who wants to develop programs or do personal word processing on it, or anyone in between. All the software development and testing at K-Byte is done on Ataris.

What I'm getting at is that they're both good machines and that you can't, or at least shouldn't,

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